



Fisheries Seminar Choosing & Sustaining a Healthy Fish

Steps to choosing a healthy fish:

- A) Even the best Fish in the world could be affected by a host of different problems, for example:
 - a. Costia
 - b. Aramonas
 - c. Anchor worm
 - d. Flukes

When we bring fish in, there are concerns that we are bringing in problems. You should also be cautious when adding additional fish into your pond. Here at Vandermeer, we quarantine and treat our new fish for a period of roughly 2 weeks, so that they are bug free. Keeping fish at retail operations are often more difficult than it will be in your pond. Here, we are bringing in fish from all over the world and could bring in the odd parasite or bacteria. We are not referring to viruses that affect humans. Many of these fish passengers are actively growing in many habitats in the wild and become more of a problem when conditions are less than ideal. (I.e. high density retail tanks)

A) Finding a healthy fish.

The fish should be hungry! A hungry fish is a healthy fish, and they should rush to meet you “en masse”. You should check to see if any fish are hiding by themselves, or have a cloudy skin.

B) Be cautious that you are getting fish from a healthy environment. If you see more than one fish that don’t look quite right, that is a good sign that there is something bothering the fish.

Flashing off the bottom and red sores could also be a sign of problems. Is the bottom of the tanks clean? Are the fish crowded in the tanks?

C) Select type, size & number of fish compatible with your system.

For example, if you have a shallow pond, consider pond comets rather than Koi. Pond Comets will do much better in a smaller pond than Koi will. (Koi generally feel most at home in a pond 10’ x20’ x 4’ deep. If you have a small water garden, for example 4’ x 6’ x 2’ deep, & you want to control insects, consider guppies or rainbows. Bear in mind, however, that these fish are tropical and cannot survive a winter. This is acceptable because the pond is likely to freeze solid anyway. Simply bring the fish indoors when temperatures diminish in the fall.

D) Don’t put too many in too fast.

Fish waste turns into ammonia which is actually very harmful to fish. The good bacteria that break down fish waste do not work like a light switch. They need time (approx. one to two weeks) to catch up to the quantity of waste that is being produced. Even in the spring it is a good idea to top up these bacteria by adding new bacteria, because much of it has died off over the colder winter months and does not start to grow until water temperatures start to rise. Adding six, 3-4 inch fish per week, would be considered MAXIMUM for the average backyard pond. One should be careful not to overfeed both in the spring and when adding new fish to the pond.

Maintaining Healthy Fish.

Always remember that the condition of the environment will have a direct impact on the health & longevity of your fish. It always comes back to WATER QUALITY.

1) Look after the environment.

2) Size the filter to the pond.

- To do this we take the total gallons and multiply by a factor of 2. If you are planning a pond to house a fish collection, remember that a filter cannot be too big.

3) Have a proper flow rate

- Take your total volume (length x width x depth) x 7.5 and ensure your pump is rated for at least half of this. Remember to compensate for any waterfalls you may incorporate.

4) Provide Aeration

- This is especially important during heat waves, and when a lot of plants are in the pond. It must be remembered that not only do the fish require oxygen in the pond, but so do the plants, decomposition uses some and so does the filter. In periods of warm weather, oxygen saturation levels drop and an entire pond can suffocate to death overnight. You can rely upon a vigorous waterfall, but remember that if the pump fails, and you have no backup system in place you could be in trouble.

5) Water changes

- There is a misconception that a “balanced pond” does not need water changes because the plants use the waste the fish produce. Fish waste contains many elements, such as hormones, salts, nitrogenous compounds & phosphates. Some of these compounds are cumulative and can only be removed with water changes. The presence of these compounds is hazardous to the fish and outside the scope of this discussion. During the season, 25 -30% should be removed every 2 – 3 weeks. This should encompass as much solids from the bottom as possible. Remember, replacing water that has evaporated is NOT a water change.

6) Temperature/Sunlight

- Temperature should be checked regularly and not be permitted to rise above 25 degrees Celsius (if possible). Sometimes this cannot be helped, but you can regulate this by doing partial water changes, I have used this technique for years, and when done correctly it is very effective.

- Sunlight is important, but an overabundance can lead to temperature and algae problems. Use deepwater shade and floating plants as a control measure. The plants will filter water too! Deeper ponds will regulate their temperature better than shallow ponds.

7) Maintain the System

- While out enjoying your pond, get into the habit of checking your systems. Hose clamps, waterfalls, pumps, filters, air stones should all be glanced at regularly.

- Many people make the mistake of cleaning their filter media with tap water. This is fine if the water is not chlorinated. City water supplies are chlorinated, which KILLS FILTERS.

- To clean your Biological filter, use a bucket of pond water and rinse it several times until it almost comes clean.

8) Don't Overstock or Overfeed.

- This point is usually the culprit in the case of the problem pond. Feed only as much as the fish will consume in 5 minutes, a small handful at a time, twice a day should be sufficient.

- Stocking density formulas rarely incorporate all the variables necessary to be really accurate, and I don't like recommending them, but for sake of ease, 1 Koi or 2 Goldfish per 100 gallons is acceptable. This formula is based upon an adult fish size.

What Makes a Koi A Winner!

- 1) Bloodline
- 2) Food Quality & Quantity
- 3) Water Quality

What is a “Tategoi”?

Simply put, the word translates to “Koi which will become better”.

This word is paradoxical, because very few fish are true tategoi, yet every fish *at one point in its life* is a tategoi – it is when, and for how long, that is the question.

In a koi’s lifetime the pattern develops. Red & white intensify, widen, and deepen. Black rises to the surface, splintering or intensifying depending on the fish in question.

The things to look for in the quest for TATEGOI are:

- 1) Confirmation
- 2) Female Fish
- 3) Colour quality
- 4) Balance of pattern
- 5) Skin luster, or FUKURIN
- 6) Presence

The best and least expensive way to find a tategoi is to scour the yearling tanks. Collectors, breeders and dealers are constantly scouring the breeding farms in Japan. It literally becomes a quest for a dream, because the trick is to predict the future pattern of the fish 5 years from the date of purchase. Only one in a million Koi will go on to win the ‘Supreme Champion’ at the All Japan Show held annually. Some of these champions take 17 or 21 years to develop.

True tategoi can be told by their skin luster – it is “silky”. This is the most important secret in finding the best fish.

To find a fish of this caliber is one thing, to not ruin it is quite another. Perfect water quality must be maintained, and temperature control must be in place.